REMARKS

Before entry of this Amendment and Response, the status of the application according to the pending Office action is as follows:

- Claims 1, 3-7, and 11 are rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 5,688,192 to Aoyama (hereinafter "Aoyama").
- Claims 1, 3-7, 9-12, and 24-27 are rejected under 35 U.S.C. § 103(a) as being unpatentable over International Patent Publication Number WO 95/09034 to Mills (hereinafter "Mills"), in view of U.S. Patent No. 4,154,789 to Delacoste (hereinafter "Delacoste") and Aoyama.
- Claim 8 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Mills in view of Delacoste, Aoyama, and U.S. Patent No. 5,091,265 to Kennedy et al. (hereinafter "Kennedy").
- Claims 9, 26, and 27 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Aoyama.
- Claim 8 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Aoyama in view of Kennedy.

Applicant hereby amends claims 1, 7, and 9 as shown in the preceding Listing of Claims. Claim 1 is amended to more clearly define the subject matter of Applicant's invention. Claims 7 and 9 are amended to be consistent with amended claim 1. Support for the amendments may be found in the specification as filed, and at least in Paragraphs [0033] and [0035] and FIG. 1. No new matter has been added hereby.

In view of the above amendments and following remarks, Applicant respectfully requests

reconsideration and withdrawal of all grounds of rejection, and passage of claims 1, 3-12, and 24-27 to allowance.

1. Claims 1, 3-7, and 11 are rejected under 35 U.S.C. § 102(e) as being unpatentable over Aoyama. Applicant respectfully traverses this rejection as applied to the claims, as amended.

Applicant's amended independent claim 1 recites a ball with an outer skin comprising multiple layer complexes, wherein a syntactic material is used in a top layer complex forming the outermost layer complex of the ball. As can be seen in FIG. 1, the syntactic material is a part of the top layer complex 20, which comprises a number of individual layers that together form the outermost layer of the outer skin.

By contrast, in Aoyama, the compressible gaseous material incorporating the microspheres is positioned as an outer layer of the golf ball's core (see column 3, lines 2-5), which is then enclosed in a SURLYN®, ionomer resin cover (see column 1, lines 14-17). As a result, the layer of the ball containing the compressible gaseous material is not the outermost layer of the ball but an intermediate layer between the inner core and the outer resin "skin" of the ball. Aoyama does not disclose the addition of microspheres into the outer SURLYN® or Balata cover of the golf ball.

Further, Aoyama fails to disclose an outer skin of the ball being comprised of a plurality of layer complexes, wherein the outer layer complex includes a number of individual layers bonded together to form a layer of the ball's skin. In Aoyama, the layer containing the microspheres constitutes one complete layer of the ball's core (see column 3, lines 2-10), rather than being part of a complex of materials making up the outer most layer of the skin. Accordingly, claim 1 is patentable over Aoyama.

Because claims 3-7 and 11 depend directly from claim 1, these claims are patentable as well. Applicant, therefore, respectfully requests reconsideration and withdrawal of the rejection of claims 1, 3-7, and 11 under 35 U.S.C. § 102(e) over Aoyama.

2. Claims 1, 3-7, 9-12, and 24-27 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Mills in view of Delacoste and Aoyama. Applicant respectfully traverses this rejection as applied to the claims, as amended.

As stated above, Aoyama fails to teach or suggest each and every element of Applicant's independent claim 1. Mills and Delacoste fail to cure the deficiencies of Aoyama. Neither Mills, Delacoste nor Aoyama, alone or in proper combination, teach or suggest "***a plurality of layer complexes, wherein a top layer complex forming an outermost layer complex of the ball includes a syntactic material that comprises a plurality of resilient spherical bodies***," as recited in amended independent claim 1.

Mills fails to teach or suggest an outer skin of a ball comprising a plurality of complexes. Mills instead teaches a ball wherein each layer of the outer skin comprises one individual layer of a single material, namely a layer of transparent film with decorative markings, a foam layer, a woven layer and a bladder. Mills also fails to suggest the use of microspheres to increase the resilience of a ball.

Delacoste fails to teach or suggest an outer skin comprising a plurality of complexes, but rather teaches a ball manufactured from two or more layers wherein each layer is made from a single layer of material. Further, Delacoste fails to teach or suggest the use of "resilient" microballs for the purpose of improving the "bounce" of the ball. Delacoste in fact teaches the use of rigid glass-microballs whose purpose is to increase the rigidity of the ball.

Delacoste only teaches and suggests the use of hollow or solid glass microballs. Specifically, at column 3, lines 45-52: "***The ball deformation is also reduced by incorporating, in said external plastisol layer, fillers consisting notably of glass micro-balls treated by means of a specific bridging agent permitting the use of said micro-balls in combination with polyvinyl chloride. These micro-balls may be hollow or solid and have a variable density in the range of 2.4 to 2.95, and a size in the range of 5 to 50 microns***." At no point does Delacoste teach or suggest the use of resilient microballs. Glass, by its nature, is not a resilient material. Glass is defined as "a hard . . . brittle substance made by fusing silicates. . . ." MCGRAW-HILL DICTIONARY OF SCIENTIFIC AND TECHNICAL TERMS 854 (5th ed. 1994). Thus, Delacoste teaches the use of a rigid material, namely glass, and Delacoste specifically discloses that the use of glass will result in ***"surface hardness and . . . rigidity."*** In contrast, Applicant claims the use of ***"resilient spherical bodies."***

Delacoste suggests that the properties of a ball can be changed by changing the density of the ball, but Delacoste only suggests changing the properties of the ball through adding hollow glass microballs rather than solid glass microballs. Specifically, Delacoste recites in column 4, lines 9-13 that "***[i]n the case of play-balls for children wherein rebound properties and weight are not essential factors, hollow microballs of very low density (0.3 to 0.6) have been used. The ball has thus a reduced density and its rebound is therefore increased considerably.***"

It should be noted that Aoyama fails to teach using microspheres for the purpose of improving the rebound of the ball. Aoyama in fact teaches the use of microspheres in an intermediate core layer of the ball to reduce the rebound of the ball (see column 1, lines 14-32). Aoyama teaches the use of microspheres to simulate the properties of a wound golf ball in a

multi-piece solid ball. As a solid core golf ball is known to produce greater distances (see column 1, line 18) than a wound ball, by teaching the use of microspheres to mimic the properties of a wound ball Aoyama teaches the use of microspheres to reduce the distance a ball can travel. As the travel distance of a golf ball is directly related to the ball's "rebound," Aoyama is in fact teaching the use of microspheres to reduce the rebound of the ball.

There is nothing in the cited references to suggest or motivate one of ordinary skill in the art to make the combination stated in independent claim 1. Delacoste suggests adding rigid glass microballs of differing density (dependent on whether the balls are solid or hollow) to an outer layer of a ball to effect the "***surface hardness and...rigidity***," where the rebound may be increased due to the reduced density of the hollow rigid microballs. Aoyama suggests adding microspheres to an interior core layer of a ball, which results in, amongst other things, a decrease in the rebound of the ball. Therefore, Aoyama teaches directly away from the suggestions and teachings of Delacoste.

In addition, Applicant respectfully submits that there is no suggestion or motivation, either in the references themselves or in the knowledge generally available in the art, to modify Mills in view of Delacoste and Aoyama, because such a combination would change the principle operation of the references. As stated in MPEP § 2143.01, "If the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious." In re Ratti, 270 F.2d 810, 123 USPQ 349 (CCPA 1959). MPEP § 2143.01. The Office action's proposed modification of Delacoste, by adding the resilient microballs of Aoyama, would render Delacoste insufficient for its purpose, which is to incorporate glass micro-

balls in the external layer in order to increase the rigidity and reduce distortion. Delacoste, column 3, lines 45-47 and column 4, lines 3-7. Adding the resilient microspheres of Aoyama to Delacoste would teach away from the very purpose for which the microballs were suggested in Delacoste, namely increasing the ball's rigidity.

In In re Ratti, the Office action rejected claims pertaining to an oil seal comprising a bore where the claims were directed to "resilient spring fingers inserted in a resilient spring member." See, MPEP § 2143.01. The claims were rejected as obvious over a primary reference that taught an oil seal comprising a rigid bore. See, MPEP § 2143.01. However, in In re Ratti, the Office action rejection was reversed, because the "suggested combination of references would require a substantial reconstruction and redesign of the elements shown in [the primary reference] as well as a change in the basic principle under which the [primary reference] construction was designed to operate." In re Ratti, 270 F.2d 810, 813, 123 USPQ 349, 352 (CCPA 1959). See, MPEP § 2143.01. Accordingly, Applicant submits that the proposed combination of Mills, Delacoste and Aoyama would render the references insufficient for their claimed purposes. In particular, Delacoste directs to the use of rigid micro-balls in order to increase rigidity, whereas adding the resilient microspheres of Aoyama to Delacoste would decrease the ball's rigidity.

Therefore, no combination of these references suggests "***a ball comprising an outer skin having a plurality of layer complexes***," or "***a top layer complex forming an outermost layer complex of the ball includes a syntactic material that comprises a plurality of resilient spherical bodies***."

Because claims 3-7, 9-12, and 24-27 depend directly from independent claim 1, these claims are patentable as well. Accordingly, reconsideration and withdrawal of the rejection of

claims 1, 3-7, 9-12, and 24-27 under 35 U.S.C. § 103(a) based on Mills in view of Delacoste and Aoyama are respectfully requested.

3. Claim 8 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Mills in view of Delacoste, Aoyama, and Kennedy. Applicant respectfully traverses this rejection as applied to the claims, as amended.

As stated above, Mills in view of Delacoste and Aoyama, fails to teach or suggest each and every element of Applicant's independent claim 1. Kennedy fails to cure the deficiencies of Mills in view of Delacoste and Aoyama. Kennedy fails to teach an outer skin of a ball comprising a plurality of layer complexes. Kennedy also fails to teach or suggest the use of resilient spherical bodies in an outermost layer complex of a ball.

Because claim 8 depends directly from independent claim 1, this claim is patentable as well. Accordingly, reconsideration and withdrawal of the rejection of claim 8 under 35 U.S.C. § 103(a) based on Mills in view of Delacoste, Aoyama, and Kennedy is respectfully requested.

4. Claims 9, 26, and 27 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Aoyama. Applicant respectfully traverses this rejection as applied to the claims as amended.

As stated above, Aoyama, fails to teach or suggest each and every element of Applicant's independent claim 1. Because claims 9, 26, and 27 depend directly from independent claim 1, these claims are patentable as well. Accordingly, reconsideration and withdrawal of the rejection of claims 9, 26, and 27 under 35 U.S.C. § 103(a) based on Aoyama is respectfully requested.

5. Claim 8 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Aoyama in view of Kennedy. Applicant respectfully traverses this rejection as applied to the claims as amended.

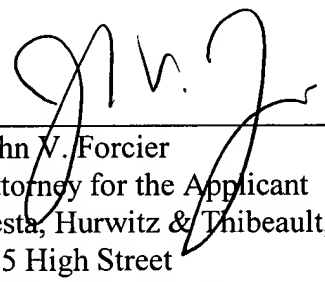
As stated above, neither Aoyama nor Kennedy, alone or in proper combination, teach or

suggest every element of amended independent claim 1. Because claim 8 depends directly from independent claim 1, this claim is patentable as well. Accordingly, reconsideration and withdrawal of the rejection of claim 8 under 35 U.S.C. § 103(a) based on Aoyama in view of Kennedy is respectfully requested.

CONCLUSION

In view of the foregoing, Applicant respectfully requests reconsideration, withdrawal of all grounds of rejection, and allowance of claims 1, 3-12, and 24-27 in due course. The Examiner is invited to contact Applicant's undersigned representative by telephone at the number listed below to discuss any outstanding issues.

Respectfully submitted,



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